

Patent
Serial No. 10/526,304
Amendment in Reply to Office Action of March 29, 2006

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated March 29, 2006. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-8 were currently pending in the Application. Claims 9-19 are added by this amendment. Claims 1 and 11 are independent claims. By means of the present amendment, the claims have been amended for better conformance to U.S. practice, such as deleting reference numerals typically used in European practice that are known to not limit the scope of the claims. Further amendments include putting the claims in proper U.S. apparatus form. The claims were not amended in this way to address issues of patentability and Applicants respectfully reserve all rights under the Doctrine of Equivalents. Applicants furthermore reserve the right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

Claims 1-8 are rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,992,965 to Glushko ("Glushko").

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Glushko shows a system for reading a three-dimensional optical disk that utilizes incident radiation (a reading beam) to excite fluorescent data regions (see, FIG. 2A and Col. 6, lines 26-31) to produce output fluorescent radiation (see, Col. 7, lines 16-19).

In operation, the reading beam is directed towards a beam splitter 14 that transmits the reading beam towards an objective lens (e.g., lens 18 in FIG. 2A and lens 37 in FIG. 2B) without substantially changing the direction of the reading beam. In other words, the beam splitter 14 is partially transmissive with respect to the reading beam and is partially reflective with respect to the output fluorescent radiation (see, Col 7, line 63 through Col. 8, line 56).

Glushko specifically teaches that "the beam splitter 14 is formed with zones 14a and 14b having different properties with respect to the incident [reading radiation] radiation B_r and fluorescent radiation B_f ." (Specifically, see, Col. 7, lines 63-66.) "The circular zone 14a is high transmissive for all wavelengths (i.e. for both reading and fluorescent radiation B_r and B_f).". (Specifically, see, Col. 8, lines 1-3.) Glushko suggests that the "transmitting zone 14a may be a through-going hole made in the central portion of the beam splitter 14." (Specifically, see,

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Col. 8, lines 3-5.) In contrast, zone 14b "blocks the incident radiation by its one side facing the light source 12, and has a reflective opposite side facing the disk" that is read (specifically, see, Col. 8, lines 5-8). In other words, the beam splitter 14 cuts off the reading radiation incident on the periphery zone 14b of the beam splitter 14 (specifically, see, Col. 8, lines 14-16) and allows passage of the reading radiation incident on zone 14a (specifically, see, Col. 8, lines 16-18).

The reading radiation that passes through the zone 14a is the radiation that excites the fluorescent data on the disk (specifically, see, Col. 8, lines 18-27). The fluorescent radiation is collected by the objective lens 18 and is directed back to the beam splitter 14 (specifically, see, Col. 8, lines 27-29). The fluorescent radiation impinges the beam splitter 14 "and is transmitted through the zone 14a and reflected by the zone 14b" towards a detecting unit 8 (Specifically, see, Col. 8, lines 54-56.) As should be clear from the above, the transmissive and reflective qualities of the beam splitter 14 of Glushko vary from zone 14a to zone 14b.

It is respectfully submitted that the apparatus of Claim 1 is not anticipated or made obvious by the teachings of Glushko. For

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example, Glushko does not disclose or suggest, an apparatus that amongst other patentable elements, comprises (illustrative emphasis provided) "a dichroic mirror arranged between the exciting source and the lens, and arranged to reflect the exciting beam towards the objective lens; and a detector unit configured to detect the excited radiation collected on the objective lens, wherein the reflected exciting beam has a numerical aperture lower than the objective lens numerical aperture" as required by Claim 1.

In addition, Glushko does not disclose or suggest "a dichroic mirror arranged between the exciting source and the lens, and configured to transmit the exciting beam towards the objective lens; and a detector unit configured to detect the excited radiation collected on the objective lens, wherein the transmitted exciting beam has a numerical aperture lower than the objective lens numerical aperture, and wherein the dichroic mirror is configured to transmit over an entire surface of the dichroic mirror, the excited radiation collected on the objective lens" as required by Claim 11.

Based on the foregoing, the Applicants respectfully submit that independent Claims 1 and 11 are patentable over Glushko and notice to this effect is earnestly solicited. Claims 2-10 and 12-

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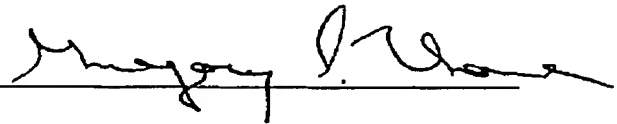
19 respectively depend from one of Claims 1 and 11 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of said claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

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Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

By 

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